REMARKS

Applicant respectfully requests consideration of this application as amended in view of the arguments presented below.

Summary of Office Action

Claims 1-20 are pending.

Claims 15 and 17 were objected to due to informalities.

Claim 17 was rejected under 35 U.S.C. § 112, second paragraph.

Claims 1-5, 7-10, and 12-14 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent Application Publication No. 2002/0016875 of Yokoyama ("Yokoyama").

Claims 6 and 11 were rejected under 35 U.S.C. § 103 as being unpatentable over Yokoyama.

Claims 15-20 were rejected under 35 U.S.C. § 103 as being unpatentable over Yokoyama in view of applicant's "admitted prior art".

Summary of Amendments

Claims 3 and 13 have been canceled. Claims 1, 4-9, 14-15, and 17 have been amended. Applicant submits that support for the amendments is found in the specification including the Figures and the claims as originally filed. Applicant respectfully submits that the amendments do not add new matter.

Response to Claim Objections

Claims 15, 17 were objected to. Applicant submits that claims 15 and 17

were amended to incorporate the Examiner's suggested corrections. Applicant

submits that the objections to the claims have been overcome.

Response to 35 U.S.C. § 112 rejections

Claim 17 was rejected under 35 U.S.C. § 112, second paragraph. The

Examiner stated:

> Claim 17 recites the limitation "the plurality of second channel identifiers"
> in line 6. There is insufficient antecedent basis for this limitation in the
> claim.

(05/06/2004 Office Action, p. 2)

Applicant believes that sufficient antecedent basis previously existed.

Applicant has further amended claim 17 in an effort to clarify the language

related to second channel identifiers. Claim 17 depends from claim 15. Claim 15

as amended includes the language:

> 15. An apparatus comprising:
> a bus master providing an initial command sequence having an
> initial channel identifier;
> *a plurality of serial devices, each device comprising:*
> a serial input port for receiving a first command sequence
> having a first channel identifier and a remaining command sequence;
> a daisy chain output port; and
> *command sequence processing logic for modifying the first channel*
> *identifier to form a second channel identifier, wherein the command processing*
> *logic provides the second channel identifier and the remaining command*
> *sequence to the daisy chain output port;* and
> a bus coupling the serial devices in one of a non-daisy-chain normal
> configuration and a daisy chain configuration.

(Claim 15, as amended)(*emphasis added*)

Given that a plurality of serial devices is claimed, applicant respectfully submits that there is proper antecedent basis for "the plurality of second channel identifiers" referred to by the Examiner.

Applicant respectfully submits that the rejections under 35 U.S.C. § 112 have been overcome.

Response to rejections under 35 U.S.C. § 102

Claims 1-5, 7-10, and 12-14 were rejected as being anticipated by Yokoyama.

Yokoyama includes a disclosure of controlling a plurality of serially connected electronic apparatuses without increasing the number of signal lines. A cascade connection command is issued to a plurality of electronic device (e.g., cameras) serially connected to a host PC. The cascade connection command is used to assign a camera ID to each camera and to recognize the set camera IDs by the host PC (Yokoyama, paragraphs 21, 25).

Each camera is assigned an ID one (1) greater than that of its predecessor (another camera or the host PC). The ID is stored in the device buffer memory (Yokoyama, paragraph 27). Each camera sends an ACK command to its predecessor. If a particular camera is the last stage of the serially-connected devices, such information is added to the status information and an ACK command is output to the host PC (Yokoyama, paragraph 31). (see also, Yokoyama, Figs. 3-5, paragraphs 36-40).

Applicant respectfully submits that although Yokoyama modifies a received ID number and provides it as a modified ID number to the next device

in a plurality of daisy-chained cameras, this is performed initially to *assign a unique device ID number* to each camera. Each camera must retain its assigned ID number for comparison with the ID number provided by the host PC in a subsequent command to determine whether to execute the subsequent command.

When performing the cascade connection command, Yokoyama's cameras are being assigned an ID number and each camera modifies its received ID number which is then cascaded to the next camera to ensure a unique ID number. *However, there is no ID number comparison used to determine whether to execute the cascade connection command.* Each device must execute the command in order to be assigned an ID number. *For all other commands, the cameras do not modify their received or provided ID number.* They compare an unmodified ID number in a received command with their respective assigned ID numbers.

Applicant notes that the Examiner has cited Yokoyama paragraphs 44-45 as support for the proposition that each of the plurality of devices uses the same pre-determined value for comparison (05/06/2004 Office Action, p. 3). *Applicant traverses the Examiner's characterization of the reference.* Paragraphs 44-45 clearly indicate that each camera is using a different comparison number to compare with the received control command (i.e., one uses "01", the other uses "02"). Applicant does note that a special ID number may be used ("00") to force all cameras to execute the command. (Yokoyama, paragraph 49). In either of these cases, however, the destination ID number passes unmodified through the cameras.

Thus a cascade connection command is the only command during which Yokoyama's destination ID number is modified and cascaded to subsequent cameras. The cameras, however, apparently perform no ID number comparison with any value during a cascade connection command because this is how the ID numbers are assigned. Accordingly every device must perform the cascade connection command without regard to the value of the ID number it receives.

For all other commands (i.e., non-cascade connection commands), Yokoyama seems to teach comparison with both the assigned ID number as well as a pre-determined value "00" to determine whether the receiving device should execute the non-cascade connection command. (Yokoyama, paragraphs 43-50) In each of these cases ("00", non-"00") the cameras do not modify the ID number received or provided to another camera.

Applicant therefore respectfully submits that Yokoyama does not teach or suggest a method of modifying and executing a command sequence including the steps of i) *modifying the channel identifier within a received command sequence to generate a modified command sequence having a modified channel identifier for transmission to the next device in the daisy chain*; AND ii) *executing a command of the received command sequence on any device receiving the command, if the received channel identifier within that received command sequence matches a pre-determined value, wherein each of the plurality of devices uses the same pre-determined value for comparison.*

In contrast, amended claim 1 includes the language:

> 1. A method comprising the steps of:
> a)   providing a command sequence containing a channel identifier to a receiving device of a plurality of daisy chained devices;

b)   *modifying the channel identifier within a received command sequence to generate a modified command sequence having a modified channel identifier for transmission to the next device in the daisy chain; and*
c)   *executing a command of the received command sequence on any device receiving the command, if the received channel identifier within that received command sequence matches a pre-determined value, wherein each of the plurality of devices uses the same pre-determined value for comparison.*

(Claim 1, as amended)(*emphasis added*)

Claim 9 similarly includes the language:

9. An apparatus comprising a plurality of serial devices, wherein each serial device comprises:
a serial input port for receiving a first command sequence having a first channel identifier and a remaining command sequence;
a daisy chain output port; and
command sequence processing logic for modifying the first channel identifier to form a second channel identifier, wherein the command processing logic provides the second channel identifier and the remaining command sequence to the daisy chain output port; and
command execution logic for executing the command if the first channel identifier matches a pre-determined value, wherein each of the plurality of serial devices uses the same pre-determined value.

(Claim 9, as amended)(*emphasis added*)

Thus applicant respectfully submits claims 1 and 9 are not anticipated under 35 U.S.C. § 102 by Yokoyama.

As stated above, claims 3 and 13 were canceled. Given that claims 2, 4-8 depend from claim 1 and claims 10-12, 14 depend from claim 9, applicant respectfully submits that claims 2, 4-8, 10-12, and 14 are likewise not anticipated by Yokoyama. Thus none of claims 1-2, 4-12, and 14 is anticipated under 35 U.S.C. § 102 by Yokoyama.

Applicant respectfully submits the rejections under 35 U.S.C. § 102 have been overcome.

<u>Response to rejections under 35 U.S.C. § 103</u>

Claims 6 and 11 were rejected as being unpatentable over <u>Yokoyama</u>. Claims 15-20 were rejected as being unpatentable over <u>Yokoyama</u> in view of applicant's "admitted prior art".

With respect to the rejection of claims 6 and 11, applicant respectfully submits claims 1 and 9 are patentable under 35 U.S.C. § 103 in view of <u>Yokoyama</u>. Given that claim 6 depends from claim 1 and claim 11 depends from claim 9, applicant respectfully submits claims 6 and 11 are likewise patentable under 35 U.S.C. § 103 in view of <u>Yokoyama</u>.

With respect to claims 15-20, the Examiner has attempted to combine <u>Yokoyama</u> with applicant's "admitted prior art". The purported motivation is to provide the serial devices with the capability of responding or acting on information communicated when their respective select lines are asserted. (05/06/2004 Office Action, p. 7)

Applicant respectfully submits that the Examiner's motivation seems non-sensical and it is not clear how the "admitted prior art" or <u>Yokoyama</u> suggest a modification that would need to be made for such a combination to be workable.

The "admitted prior art" cited by the Examiner indicates two alternative techniques. One technique uses individual select lines with the disadvantage that each serial device would require a separate select line. The other technique embeds an identifier within the command provided to the serial devices with the disadvantage that each device must be pre-configured by a jumper, switch, or other hardware with a unique identifier. These techniques are alternatives that

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not readily combinable. Applicant is uncertain as to whether the Examiner is proposing *supplementing* or *replacing* the bus of one of the architectures with the bus of another architecture.

There is no requirement for <u>Yokoyama's</u> "cascade connection command" in the "admitted prior art" because the serial devices in the "admitted prior art" have unique addresses determined either by separate select lines OR by switches, jumpers, or other hardware. The "admitted prior art" does not require daisy-chaining of devices for either communication of a command or derivation of a device ID.

The techniques used to identify or select individual devices in <u>Yokoyama</u> are mutually exclusive from the techniques used for either "admitted prior art" example cited by the Examiner. <u>Yokoyama</u> would not require select lines or an additional common non-daisy-chained bus. On the other hand, <u>Yokoyama</u> requires a daisy-chained bus for assigning ID numbers. <u>Yokoyama's</u> cascade connection command only works with a daisy-chained bus.

If the Examiner is suggesting *replacing* <u>Yokoyama's</u> daisy-chain bus, applicant respectfully submits that <u>Yokoyama</u> would be unable to assign device ID numbers to individual cameras on the bus (presumably the Examiner is relying upon <u>Yokoyama</u> for the teaching of modifying device ID numbers).

If the Examiner is suggesting *supplementing* <u>Yokoyama's</u> daisy chain bus by the "admitted prior art" bus, applicant questions the need and rationale. In such a case, an independent technique (select lines or embedded device ID combined with jumpers, switches, etc.) is used to specify a particular device and thus <u>Yokoyama's</u> daisy chain bus would not be required. What would be the

motivation suggested by either reference for *adding* a non-daisy chained bus to Yokoyama, if this is what the Examiner is proposing?

The Examiner is invited to further clarify the basis for rejecting claims 15-20 under 35 U.S.C. § 103. Applicant respectfully requests the Examiner to provide a clear description of what features of each reference are combined and what the resulting structure would include. Applicant further requests the Examiner to clarify the rationale or motivation and source of the motivation for so combining or modifying the references.

Applicant respectfully submits that the stated motivation is lacking and it is not clear how the references would teach or suggest being combined in a workable manner that preserves the teachings of each reference. Accordingly applicant respectfully submits claims 15-20 are patentable under 35 U.S.C. § 103 in view of the cited references.

Applicant submits that the rejections under 35 U.S.C. § 103 have been overcome.

Conclusion

In view of the amendments and arguments presented above, applicant respectfully submits the applicable rejections and objections have been overcome. Accordingly, claims 1-2, 4-12, and 14-20, as amended, should be found to be in condition for allowance.

If there are any issues that can be resolved by telephone conference, the Examiner is respectfully requested to contact the undersigned at (512) 858-9910.

Respectfully submitted,

Date _August 6, 2004_   _William D. Davis_
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